

Field notes: R.S. MacNash

— 2.1 km

4

1962-1967

Box 25 Folder 20



work station dates

Natunauk - just under 2  
 Denbryu " " 2  
 - ~~Potro~~  
 Tukla just over 2  
 Pakvudu more than 2  
 Kunguk over 4

Selerki

~~Kataruk~~ Katakaturuk Deukout - Site 7

British mt. site - pebble chopper  
 scraper - plane (like scraper)  
 Leraublan - like flukes (and, side, severely  
 notched.  
 2 - incipient blades

Site 9  
 12 } Coarser hand tool  
 2  
 10 -

1 site - possibilities  
 C-5-11-3, 1314  
 D. - postulating before

Site 11 - Agat Basin down to - Naya 15  
 flat - day end - scraper  
 much polyhedron con  
 side scraper  
 split pebble chopper

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# Nayukh

- even on end scraper
- even on projectile pt - ~~not~~ back tip & on broken middle point
- ovoid blades.
- flat top notched  end scraper
- regular Boreen pt.
- belly points
- large double flake rich scrap
- single " " " "
- flake barin (F + Leard)
- ~~barin~~
- middle blade - double
- end of blade scraper
- large ovoid before
- large ovoid before chopper
- end of blade scraper
- flat top scraper
- beveled end scraper
- point before (projectile)
- quartzes end scraper
- middle plane convex end scraper







# Cogate Basin

end of blade scraper

graver

ovoid bifurc

black - chert flakes



possible burin

large thin chert end scraper

flat double edge side scraper


spoke - sharp & concave side scraper

wide end scraper

 = pebble 

hammer made pebble

8000 - 9000 years

large 





Tak + u



born on a side scraper Fl. head

zibble chopper

end of blade

peeled scraper

round before

2 edge side scraper - chert

1 " " " "

1 edge " " thick

2 " " " "

blade retouch 2 edge

flat top end scraper

abraded zibble (milled)

✓ again born (small)

superficial small side blade

✓ retoucher (zibble)

✓ square base bifacial

✓ retoucher used as hammer or edge

large side blade (bifacial)

✓ thick prismatic common

✓ thin lanceolate common

✓ thin prismatic or oval "

✓ thick lanceolate rare

✓ conical polyhedral core

✓ lobular "



20 to 104 beads  
for Dendryg

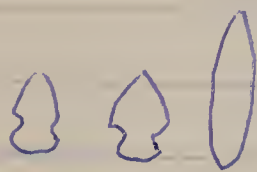
Old Whaling Ledge-mat

3600  
3800  
4000 - new half  
length

High and Beach above Kiana summit

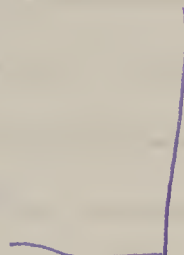
Lookout Place K R R 8

up Spawell River on Pleasanton road



blades (on with one edge rounded)  
microblades

Tabular core - almost tongue  
with scraper  
end of blade  
broad chopper



## Choris

late Choris has chert slump (pebble temper)

lots of broken on projectile points

polished edges

slab knife

bushman burins

ends of blades -

few microblades

polished drill bits

chipped drill

outer mallet

worked ball (hand drill)

ch - the



Only tongue core occurred at Bull Rock  
on hill - Huddings compares Dendryg related

maybe tongue core only Dendryg & beach

- stuff more like New Mt. from late Dendryg beach

also, Boulder Range more like late Dendryg

- double tongue

- rather possible some of late type tongue core



10/22/61

Giddings - Palisades

Ch-ch-ch



Palisades 1 of

Denby 1.9

end of blade scraper

blade & possible microblade (not retouched)

lots of bifaces

bifacial choppers

Acute brown on point fragments  
on scraper - ?

Ft. Island brown

microblades on site

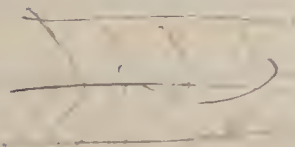
flat top end of blade

end of blade scraper

chippable choppers - bifacial choppers

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Palisades - not British Mt  
couple of pebble choppers





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	P	G	T
✓ Nailman	1	1	1
✓ Chi - thro	1	1	
✓ Lockhart	x	x	x
✓ Besant	x	x	x
✓ Anderson	x	x	x
<del>✓ Anderson</del>			
✓ Refuge	✓	x	x
✓ end of black scraper	x	x	x
✓ before	x	x	x
✓ before chopper	x	x	x
✓ black	x	✓	x
✓ end of hammer	x	x	x
✓ Ft. Ford hammer	x	✓	x
✓ flat top end copper	x	x	x
✓ pebble chopper		<del>x</del>	<del>x</del>

- note



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1114. 2993  
1115. 2994  
1116. 2995  
1117. 2996  
1118. 2997  
1119. 2998  
1120. 2999  
1121. 3000  
1122. 3001

Baule Rock

Possible cord-marked pottery



blades microliths - ?



20  
19  
19





Norton Chert - group of arrows 0 0 0

Spindly - engraved (flat pebble - could have writing?)

~~Spindly~~

Between all whaling & Chert - fine chert/chert stamp or dentate

Norton - fine of arrow pt much better than

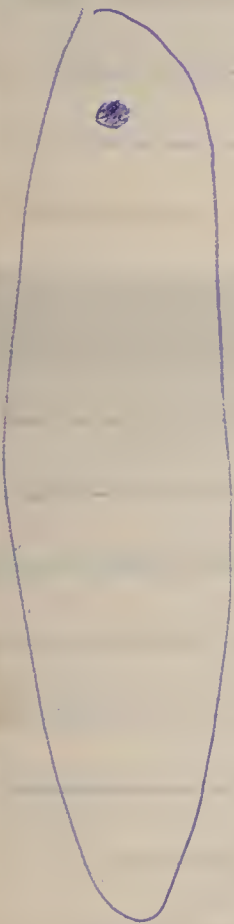
branching blow from all

After all whaling - before Chert - dentate stamp  
good Buckhorn/Hill Dentate



Whale bone heart - polished one chert/arrow

- whole chert-like O.B.S. but Norton forte  
between Chert & Norton





Holdings - copy of chart on wall  
Choris 1000 B.C.

1000

Thule  
Krus

Bronik

Sputnik

Newton

1000

Choris  
Bault Rock  
Old Whaling

2000

Dentrock

3000

4000

Palisades





10/22/61

Cache - Chorus Beach

beaver



beaver artifact (on projectile point)

end scraper



side blade

ovoid

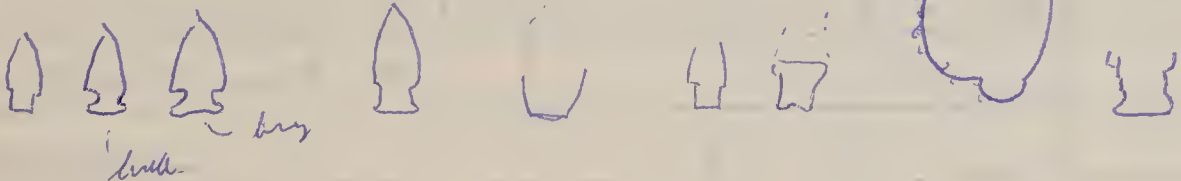


Anguiform - like pt - rounded & not sharp

---

Old whaling

big house - deeply excavated



chipped edge

beaver on point



8 - matched end scraper

a few small blades



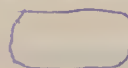
possible to see blade

whole house

chipped also like tool

ground before

camp





		F.C.	K1	Kay	Kb <sub>2</sub>	X	L.C.	FR
✓ Lioma-like pit	①	X	X	X	X	X	X	X
✓ split pebble chopper	X	X	X		X	X		
✓ truncated blade	①	X	X	X	X	X	X	X
✓ scraper flake		X	X			X		
✓ microlith	③	X	X	X	X			
✓ prismatic barbed	④	X	X	X	X	X	X	X
✓ polyhedral core	⑤	X	X	?	X		X	X
✓ needles	✓	X		X				
✓ grooves	✓	X			X			
✓ F.C. beam	✓	X		X				
✓ F.C. head beam	X	X			X	X	X	
✓ denticles		X						
✓ pebble beam		X						
✓ sinuous stain		X						
✓ pebble pendents		X						
✓ end of blade scrap	X	X		X	X?			
✓ scaly scrap	✓	X			X?	?		
✓ clear drag before	X	X		X	X	X		
✓ bifacial chopper		X						
✓ small round indurated	X	X?		X	?	X		
✓ brown blons on point	X	?		X	X			
<del>opake point</del>								
opake beam					X			

12 -  
12 -  
5 -





1967

	PT. Art.	Fry Lake	N. 7	Inhabitant	Building	Grass	Tyone	Grass	Pat's
✓ clear thro	x	x	x	x		x	x	<del>x</del>	x
red-wings		x		x				x	
✓ end of black wings	x	x	x	x		x	x	x	x
✓ { least incl wings	x	x	x	x		x		x	x
flat top " "	x	x	x	x		x	x	x	x
M. nesard									x
Ugole basin						x	x	x	
Walrus	x			x		x		x	
✓ { Anderson		x	x	x	x		x	x	x
Bessant		x		x			x	x	x
Inhabitant	x		x	x		x		x	x
Tunge									
white-brown									
Pigeon		x		x	x	x		x	x
split pebble chopper									
✓ open chopper	x	x	x	x	x	x		x	x
longer core	x					x			
lobular		?	x					x	
✓ concave	x	?			x	x	x	x	
✓ irregular	x	x	x	x	x	x	x	x	
✓ blades	x	x	x	x	x	x	x	x	x
✓ E. f. front business	x	?	x	x		x		x	x
concentric lines	x								
sides									
surface detail									
beams best zone									

<del>15</del>	11	11	14	6	14	9	16	12
11	9	9	10	6	12	8	13	9



		Agalibeen	C	N	G.B.R.	A	Sandy Lake
X	flake end scraper		x	ux		x	
	before chopper		x	ux			
X	around before	x	x	ux	x	x	x
X	Agalibeen bone	x	x	ux	x	x	x
X	Orlupet bone	x?	x	ux	x	x	x
X	Fl. foot bone	? x?	x?	ux	x	x	?
X	end of blade xmm	x	x	ux	x	x	x
X	blade	x	x	ux	x	x	x
	groove	x	x				
	Helled end scraper		x	ux			
X	Belly pt	x	x	ux	x	x	x
	Split pebble chopper x?		x		x		
	pebble chopper		x		<del>x</del>	x	
	flat top end scraper x			x		x	x
X	some rest of small ones	x	x	x		x	

### 10 Split pebble chopper

- ✓ microblacks — round end, pointed retouched (some notched)
- ✓ fluted & flat top end scrapers
- ✓ blades
- ✓ end of blade scraper
- ✓ Fl. foot bone
- ✓ before chopper
- ✓ many around before
- ✓ Helled end scraper
- ✓ tongue core
- ✓ round core
- ✓ Ch. core
- ✓ Helled end
- Orlupet bone
- Agalibeen pt
- subula wire
- rubber + stone pt.





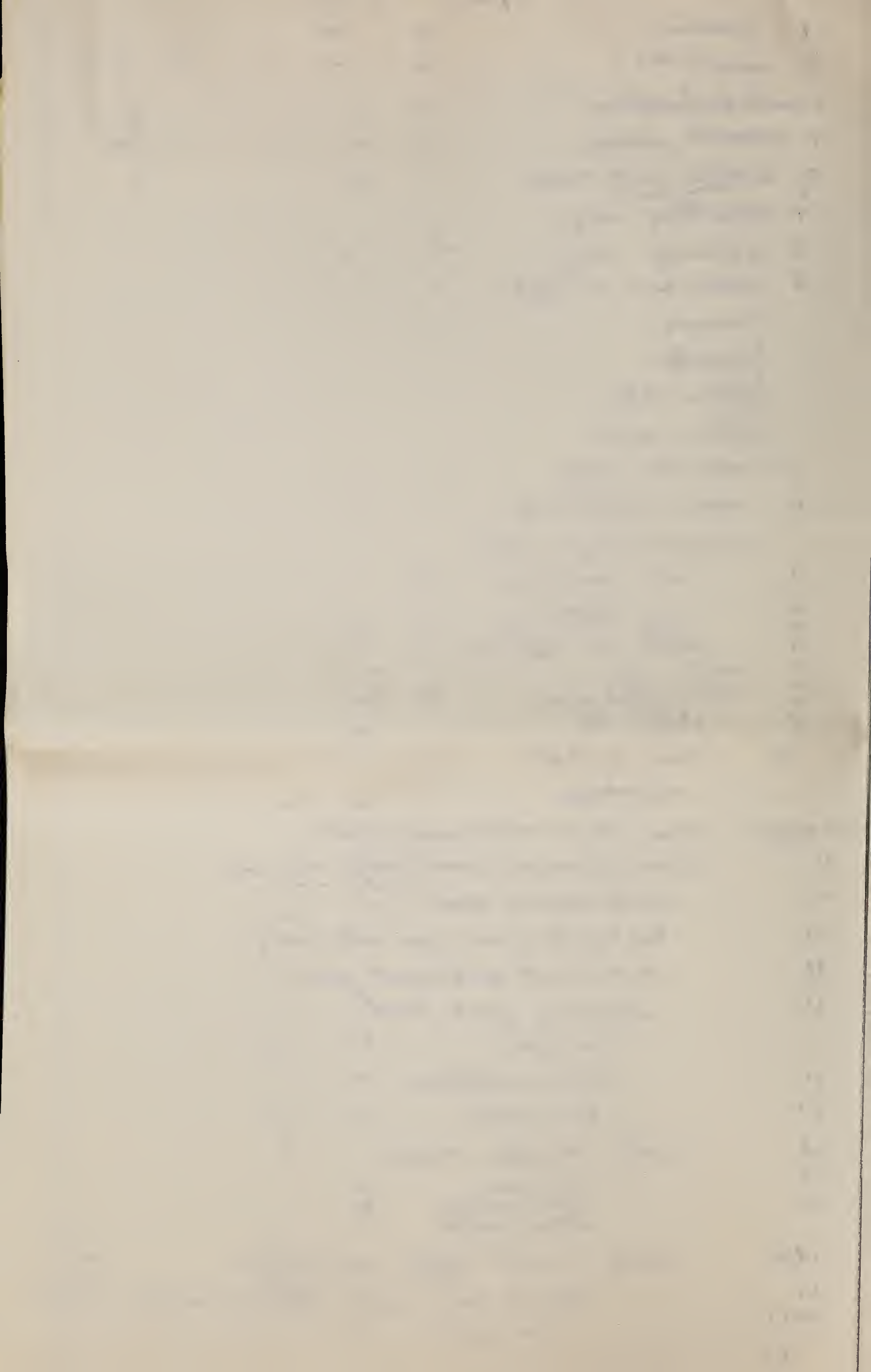
1962

	Pt Mt	Campus	Fish Lake	UT	Zabala	Tuktu	Tyson	Goodman	Nahabing
✓ Chercher	x	x	x	x	x	?x	x	x	
✓ end of black swamp	x	x	x	x	x	x	x	x	
✓ end of mud and rocks	x	x	x	x	x	x	x	x	
✓ white point	x	x	x	x	x	x	x	x	x
✓ exposed clippers	x	x	x	x	x	x	?	x	x
✓ blades	x	x	x	x	x	x	x	x	x
✓ mudstone	x	x	x	x	x	x	x		x
✓ F. land down	x	x	?	x	x	x	.	x	
✓ correct core	x	x				x	x		x



# Kooking Bay - 1913

- |        |   |   |   |      |
|--------|---|---|---|------|
| 1      | person  | ✓ | ✓ |      |
| 2      | boulder dog                                   | ✓ | ✓ |      |
| 3      | marked stones                                 | ✓ | ✓ | J    |
| 4      | ground stones                                 | ✓ | ✓ | J, K |
| 5      | stone work holes                              |   | ✓ | J    |
| 6      | low drill                                     |   |   |      |
| 7      | splitting adze                                |   |   |      |
| 8      | planing adze                                  | ✓ | ✓ |      |
| 9      | adze head or haft                             | ✓ | ✓ |      |
|        | { mauls                                       |   |   |      |
|        | { pestles                                     |   |   |      |
|        | { stone clubs                                 |   |   |      |
|        | { stone saws                                  |   | ✓ |      |
| 9      | oval stone lamp                               | ✓ | ✓ |      |
| 10     | round - circular lamp                         |   | ✓ |      |
|        | lamps with finger or bowl                     |   |   |      |
| 11     | small lanceolate pt                           | ✓ |   |      |
| 12     | " lanceolate "                                | ✓ |   |      |
| 13     | stone bowl with handle                        | ✓ | ✓ |      |
| 14     | stone bowl with handle                        | ✓ | ✓ |      |
| 15     | smaller bowl                                  | ✓ | ✓ |      |
| 16     | marked stones                                 | ✓ | ✓ |      |
| 17     | small stone bowl                              | ✓ | ✓ |      |
| 18     | chipped stone                                 |   | ✓ |      |
| 19     | bone chisel pt                                | ✓ | ✓ |      |
|        | <del>bone chisel</del>                        |   | ✓ |      |
| 20     | large bone handle without insect holes        |   | ✓ |      |
| 21     | delicately worked handle, worked on all sides |   | ✓ |      |
| 22     | slender barbed point                          | ✓ | ✓ |      |
| 23     | barbed for a fish spear side jaw              | ✓ | ✓ |      |
| 24     | barbed point for the fish spear               | ✓ | ✓ |      |
| 25     | composite fish hook                           |   | ✓ |      |
|        | bone pins                                     | ✓ | ✓ |      |
| 26     | intoler needlework                            | ✓ | ✓ |      |
| 27     | bone wedge                                    | ✓ | ✓ |      |
| 28     | bone scapulae scrapers                        |   | ✓ |      |
| 29     | labrets                                       | ✓ | ✓ |      |
| 30     | stone sawing                                  | ✓ |   |      |
|        | stone bolts                                   | ✓ |   |      |
| 31, 32 | bone needles, copper, mungifera               |   | ✓ |      |
| 33     | split stone - with flange of bone             |   | ✓ |      |
| 33, 34 | in part                                       | ✓ | ✓ |      |





5 June 6 1962

pebble dropper

lyp = 3			3	
FK 8	5		3	☆
Milneson 1			1	
Longella 1			1	
before coffee 2			2	
slab " 3			3	☆
leachdrop before 4			4	
flat pavement Rd 5	} 7		1	☆
" concrete 3				☆
and mortar 4			4	☆
short pavement x				
scraper place 2			2	☆
scale 3	— 1		2	
end of block 1			1	
short flat on edge 1	} 3			☆
slab " " " 1				☆
" " 2 edge 1				
pebble pendants 6	5		1	
" brown 2			2	
stone stone 1			1	
52	<u>21</u>		<u>31</u>	= 52
ft. low 2			1	
Taken from 1				
needles 5			x	
grains - 2			x	
	<u>31</u>			
water			x	







	BL.	Sp R.	HeP	we	Common	D <sub>1</sub> x	
Prairie	x	x		x	x	x?	✓
Sto H	x	x	x		x	x	✓
when trout end	x	x			x	x	✓
flat top end road	x	x			x	x	✓
also there	x	x	x		x	x	✓
melancholy	x	x				x	✓
longer into middle row	x		x			x	✓
long beam platform	x		x		x	x	✓
ambulation multi. hot pt-	x		x		x	x	✓
smaller lines	x		x		x	x	✓
from beams	x		x			x	✓
deser. work garage	x		?			x	
copper plus	x					x	
copper anils	x					x	
copper pants	x					x	
copper handle	x					x	
copper garage	x					x	
Caten	x					x	
leg bar and	x					x	
abys	x					x	
abroadly also	x					x	
scrapping plus abys	x					x	
from table	x					x	



# Tubular

# Slender

A. Nelson	x	x	x
Bassett	x	x	
Leitch	x	x	
Capote Basin	x	x	
Refugio	x	x	
pebble. white	x	x	
single. lapper	x	x	
1/2 worn side black	x	x	
large oval surface	x	x	
end of black	x	x	
flat - lapp end surface	x	x	
flat end surface	x	x	
down one edge side surface	x	x	
flat " " "	x	x	
down " " "	x	x	
flat " " "	x	x	
black 2-1	x	x	
marked 59	x	x	
conical end surface	x	x	
black 1000	x	x	
day one	x	x	
white surface	x	x	
pebble on flat surface	x	x	
<del>pebble surface</del>			
<del>pebble surface</del>			
abrasion	x		
heavy groove		x	
much flange removed		x	
Top		x	
black		x	
blackest surface		x	
the etc		x	
longer one		x	
black		x	



Salski

Pembroke Burin

ash black

large cone

unburnt cone

lanceolate beak pt.

conical cone

triangular pt with some chis







Since Frederica de Laguna suggested that the so called "boot creasers" of the Dorset culture, well known too from O. Solberg's description of the "Stone Age" in West Greenland (Solberg 1907) "would correspond in function to the chipped stone "burins" or gravers 2) of the Upper Palaeolithic of Europe" (Laguna 1946, p. 139), it has become obvious that real burins and related implements occur in different levels of the Eskimo culture from Alaska to Greenland.

The most important step on the way for recognition of the Eskimo burin was made when J. L. Giddings in 1948 discovered the Denbigh Flint Complex and described burins and burin spalls as typical elements of this culture (Giddings 1949, 1951, 1956). The question was further discussed by J. Meldgaard (1952), H. B. Collins (1953) and W. Irving (1955). More and more sites were published where the flint material included burins and related artifacts, from interior Alaska (Solecki and Hackmann 1951; Irving 1951, 1953; Campbell 1959), from Arctic Canada (Meldgaard 1952, 1955; MacNeish 1954, 1956; Collins 1955, 1956; Harp 1958; Lowther 1960<sup>3)</sup>) and from Greenland (Knuth 1952, 1954, 1958; Larsen and Melgaard 1958; Mathiassen 1958).

It has been stated by different authors that the burin in the Eskimo area is similar to the Eurasiatic burin of Upper Palaeolithic and Mesolithic Age. However, Collins distinguishes between "genuine burins and others with rubbed edges, which may have functioned as burins but were made differently" (Collins 1953, p. 36). Concerning the true burins, he emphasizes that "the upper end has been chipped to a rather thin knife-like edge, so that in use the blade would have been moved back and forth in the plane of its width, and not transversely like European burin"; and he further says that "the American burins also differ from Palaeolithic examples in being more carefully shaped and more extensively chipped on the surface". Meldgaard in discussing the Sarqaq burins, collected by Hans Mosegaard, mentions that "a single burin can.... be described as an 'ordinary' or chisel burin". The other burins of the Sarqaq culture have an "oblique, sharp or rounded front edge" from which "one or more 'burin=blows' are struck" (Meldgaard 1952, p. 223). Irving points out, that the burins "in certain instances, and particularly at the Alaskan sites,..... are accompanied by other implements typologically similar to Old World Palaeolithic and Mesolithic forms; elsewhere, they are found in complexes that may be more distinctively American" (Irving 1955, p. 380).

As the term "burin" becomes more and more general in the publications on early Eskimo cultures, I think it is necessary to fix what is actually meant. It can be seen from the above mentioned observations about Eskimo burins, that Collins and Meldgaard distinguish different kinds of burins and burin-like implements; they have also noted that there are certain differences from the Eurasiatic burin.

\* \* \*

It may be useful to reconsider the definition of the Upper Palaeolithic and Mesolithic burin in the Old World. 4) Based on a formulation recently proposed by F. Felgenhauer (1962), I would describe it as follows: The burin is a stone implement with a chisel-shaped cutting edge (German: Stichelkante) which always runs in a right angle to the plane of the implement. This cutting edge is formed by the meeting of two rather narrow facets. At least one of these facets must be formed by one or several "burin=blows". If the other facet is not made in the same way, it may be formed by retouches, fracture or be unworked.

We therefore have central-burins, left-angle-burins and right-angle-burins which all may be formed by blows on both sides or by blows on one side and retouches on the other. On the angle-burins only one of the facets may be formed by the breaking of a blade or flake before this has been transformed into a burin by striking off one or several spalls on one side (Fig. 1).

One often reads that burins have been resharpened after having been used sufficiently long so that the cutting edge had become dulled. This may have happened occasionally but I think that not infrequently during the initial preparation of a burin several spalls must have been struck off. The reason is probably that in many cases the first blows from the thin end of a blade produced only a point or a very narrow cutting edge (Fig. 2). The following blows resulted in forming the needed cutting edge of some millimetres thickness (Fig. 3).





In this connection we have to note that most of the burin spalls found in Upper Palaeolithic or Mesolithic cultures in Europe have a very typical form. The cross-section of their upper part differs from that of their lower part (Fig. 4). If the edge of the blade or flake from which the spall has been struck off was already retouched, we find some of these retouches on the lower part of the spalls (Fig. 5). Sometimes these spalls may have been retouched and used secondarily though this has never been proven by a detailed study.

It has to be mentioned that the burins of Upper Palaeolithic cultures are usually larger and better worked than those of Mesolithic cultures. Most of the latter are rather small and less skillfully made. As worked pieces of bone and antler show, both have in general been used to cut long grooves in these organic materials by moving the implement forth and back transversally to its width, which means in the direction of the chisel-shaped cutting edge. The main purpose of this use must have been the securing of strips of bone or antler for the fabrication of such implements as needles, arrowheads, etc. (Clark 1953). Burins very likely have also served for engraving purposes, especially those with a narrow cutting edge for drawing figures and ornaments on organic material, eventually also for carving purposes.

There is no need to treat here the rare forms of burins: polyhedral burins, prismatic burins, double- or multi-burins, burins combined with scrapers or other implements, etc. Nor is it necessary to describe the different subtypes of central and angle burins.

One point has still to be mentioned: the so called Mesolithic "micro-burin" in Eurasia is very likely not a true small implement but simply a by product from the fracturing of blades for the fabrication of geometrical microliths (triangles, trapezes) (5) (Fig. 6).

\* \* \*

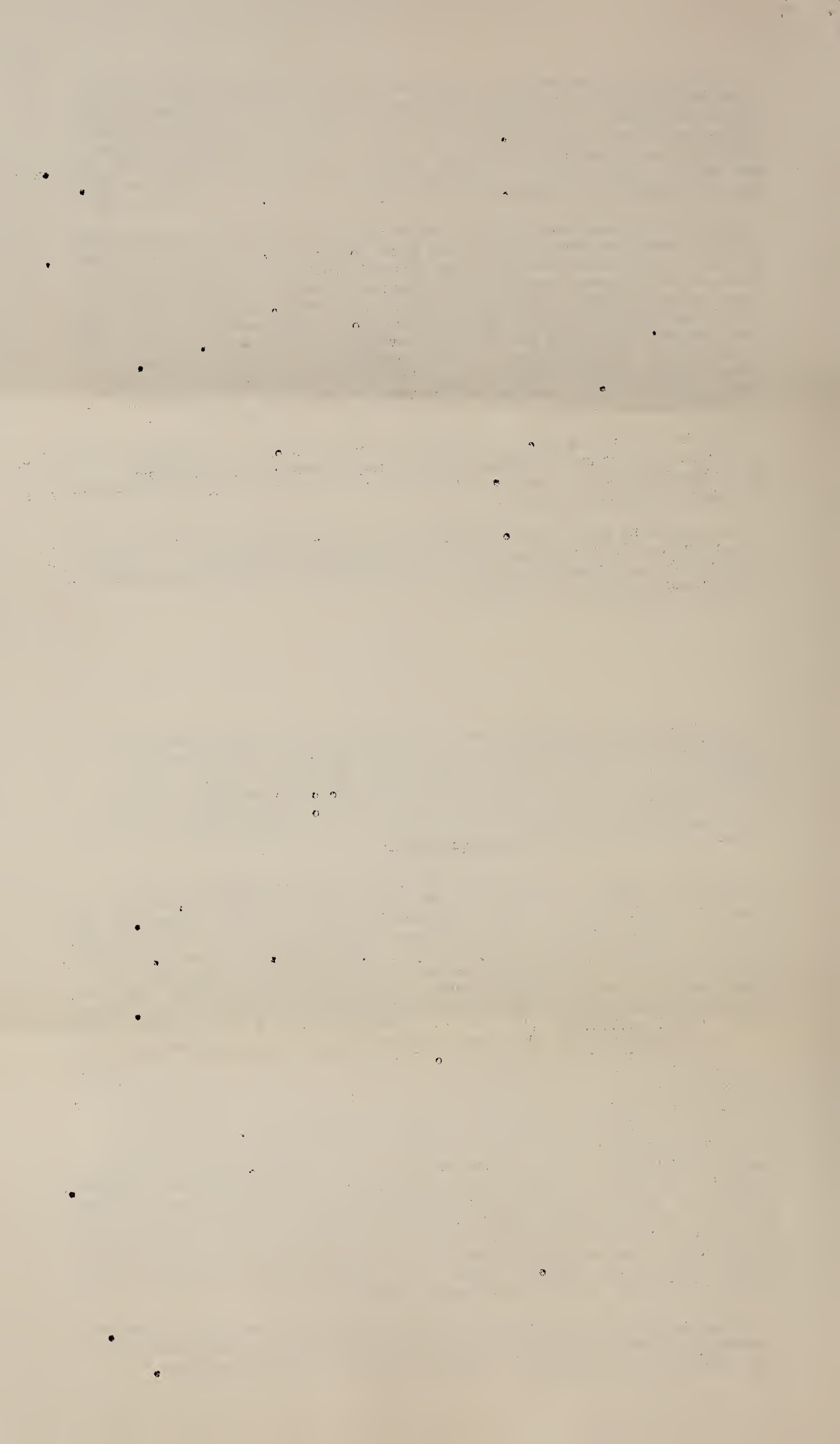
There obviously are burins from the Eskimo area which correspond to the definition of Eurasiatic burins. We may mention some examples from the Iyatayet site at Cape Denbigh (Giddings 1951, Fig. 59a, No. 1-4). Their cutting edge has been produced by striking two or more blows off. There is no indication of a surface retouch (at least not for the surfaces shown in the illustration). By their rather small size they recall mostly Mesolithic burins. We may call them "ordinary burins" (Fig. 7).

A second category of burins from the Eskimo territory still have the typical cutting edge. But they are separated from the first category of burins by the fact that they have a complete or partial surface retouch on one or both of their surfaces. Some have been published by Meldgaard from Sarqaq and Disko Bay (1952, Fig. 78, nos 2, 9, 10). There would be no problem to use these artifacts like an ordinary burin. It is difficult to understand why these artifacts were retouched before the spall was struck off; the only reason I can see is that this should facilitate the hafting.\* We may call these burins "retouched burins" (Fig. 8)

\* I don't think that they have often been made from other implements formerly used for a different purpose.

Furthermore, there is a group of implements which in the field of Eskimo archaeology are also called "burins". Their form can be seen on a schematic drawing published by J.L. Giddings (1956, Fig. 1). Its basis is a well prepared blade (Giddings's example shows only large retouches on all the edges, but often this type bears surface retouches on one or both sides), from which several spalls have been struck off. This did not produce a chisel-shaped cutting edge, but a kind of point on the outermost part of the wedge-shaped front edge, the latter having been primarily sharpened by the mentioned retouches. Solecki and Hackman even think that "these artifacts were originally side and end scrapers, showing attritional wear on one or more edge sides" (Solecki and Hackman 1951 p. 88). This is the reason why H. B. Collins pointed out that in use such blades "would have been moved back and forth in the plane of its width" though he ranges them together with the true burins (1953, p. 36). I propose to call them "pseudo burins" (Fig. 9).

These artifacts, which thus differ in a very distinctive feature from the Eurasiatic burin, may have been made for the same purposes as real burins. But there is some indication that they may have had other functions.





First, mention may be made of the small pseudo-burins from which so many spalls have been struck off that the remaining part of the front edge is very narrow and sometimes quite oblique (Collins 1953, Fig. 3 k-p). The use as a "plane burin" is therefore rather improbable (Fig. 10).

Secondly, there is the fact that the spalls of this type have a special importance as J.L. Giddings has shown (1956). They are four-sided and their upper edge bears the traces of the retouching on the blades from which they have been struck off 6). It is certainly strange, that a sharpened edge was used as striking platform. On the distal end of most of these spalls a very fine retouch can be seen (Fig. 11). Giddings points out that "there is no doubt that the retouched areas result from use or from some shearing process, as in pressing the working edge against bone or antler" (Giddings 1956, p. 234). Giddings suggests that these spalls could have been shafted engravers, though besides a few antler objects from Cave 2 at Trail Creek (Larsen 1951, p. 74) which might be related to the Denbigh Flint Complex (Larsen and Meldgaard 1958, p. 69), we don't know much about carving and engraving technique of this early culture. He also says that "even though the burin of the Denbigh Flint Complex was probably used primarily for grooving, it must have been regarded by its makers in many cases as a core for the production of excellent burin spalls" (Giddings 1956, p. 236). 7) I therefore suggest that it would be more accurate to call these spalls "pseudo burin spalls" or, if a secondary use as a burin can be proven, "spall-burins".

Finally, we must mention a category of implements from Greenland and Arctic Canada originally named "boot creasers" or "drill points", which in the recent literature are called "three-sided drill points" (Meldgaard 1952, p. 228 s.), or "burin-like implements" (Collins 1950, p. 25; Larsen and Meldgaard 1958, pp. 17, 61). Collins suggests that "they are specialized forms of burins, later probably than the true burins, but used in the same general way" (Collins 1953, p. 39). These implements again show a surface retouch but their working end is mostly three sided and ground. The wedge-shaped front edge, different from a real burin but similar to the pseudo-burin, runs in the plane of the width of the artifact (Fig. 12). Larsen suggests that these burin-like implements were not used as "boot creasers" 8) but for cutting grooves in antlers, ivory and bone. He thinks that they may represent a later development of the true burin (Larsen and Meldgaard 1958, p. 61).

\* \* \*

It seems to me that the appearance of the different burins, pseudo-burins and burin-like artifacts in the Eskimo area might have some chronological and chorological meaning. I don't think that the ordinary burin and the retouched burin belong to different levels of the American Arctic, because both these types are present in early Mesolithic cultures of the Old World: for instance on Hokkaido at Shirataki Locality 33 (Sugihara & Tozawa 1960, p. 18). But I should not be surprised if in the oldest groups of the "Arctic Small Tool Tradition" (Irving 1957, p. 47) the ordinary and retouched burins should be predominant whereas the importance of the pseudo-burins and consequently also of the spall-burin would have increased during the subsequent development of this group of early cultures. The fact that the Campus Site at College in Central Alaska (Rainey 1939) with its wedge-shaped (also boat-shaped) cores 9) has some specimens of ordinary burins 10) but only one doubtful example of a pseudo-burins (Irving 1955) which could also be a side-blade, may indicate that this industry is older than that of the "classic" Denbigh Flint Complex, where pseudo-burins are as well represented as ordinary burins and retouched burins. Furthermore, mention may be made that R. S. Solecki reports on two sites of the Arctic Small Tool Tradition from the Kukpowruk and Kokolik area: one of them (site no. 121) yielded wedge-shaped cores, the other (site no. 65) rather large polyhedral cores (Solecki 1950, p. 67; 1951). It would be important to know more about the burins of these two sites. 11) It may be that the pseudo-burin and the spall-burin technique are an American invention. At least I was not able to find similar examples in Asiatic industries; though we don't yet know very much about the burins on the opposite Siberian coast (Chard 1955, p. 167). It would also be of interest to know if and what kinds of burins are represented in the "microlithic" industries of the Amur region, mentioned by C. S. Chard (1959, p. 47).

I have already mentioned that Meldgaard described only one of the Sarqaq burins collected by Hans Mosegaard as "ordinary", all others are pseudo-burins. The same appears from the publications of Larsen and Meldgaard (1958) and Mathiessen (1958) to be the case for Sermermiut and other Sarqaq sites in the Disko Bay area. Furthermore, we may note that Collins (1953, Fig. 3 m-p)





and Meldgaard (1952, Fig. 78/12,13) illustrate exclusively pseudo-burins from Dorset sites.

If the burin-like implement which is especially characteristic for the Dorset Culture in Greenland, but appears also elsewhere and later (Larsen and Meldgaard 1958, p. 62) is actually connected with the development of burins and pseudo-burins, it must be the latest offshoot.

This of course is only an hypothesis. There is no possibility of quantitatively verifying it through the literature as long as large reports including statistical analyses of the stone material are so scarce in Eskimo archaeology. ~~It is certainly interesting to get the preliminary reports about the newest discoveries of each season of field work and to know the hazardous theories about the origin and development of Eskimo culture based on them. But besides this "arctic small paper tradition" we need more extensive reports too, where not only some type-specimens but if possible all or at least a large part of the artifacts found on one site are described and illustrated. 12) Only this will enable us to consolidate our knowledge about Eskimo-prehistory.~~ It is certainly interesting to get the preliminary reports about the newest discoveries of each season of field work and to know the hazardous theories about the origin and development of Eskimo culture based on them. But besides this "arctic small paper tradition" we need more extensive reports too, where not only some type-specimens but if possible all or at least a large part of the artifacts found on one site are described and illustrated. 12) Only this will enable us to consolidate our knowledge about Eskimo-prehistory.

#### Foot-notes:

- 1) I am obliged to F. Hadleigh-West for encouraging me to this paper and helping me to translate it.
- 2) Some of the authors in the field of Eskimo archaeology refer to the description of this type of tools be M.C. Burkitt (1920; 1949, p. 59 ss.) and G. V. Noone (1934). There the term "burin" is identified with that of "graver". Actually this may be correct as today an engraver does not use only needle-shaped, pointed by also chisel-shaped graving tools, the latter having more or less the characteristics of a stone age burin. But in prehistory the term "graver" should be used for pointed artifacts only.
- 3) I don't include the "burins of central or convex type" which MacNeish mentions from his British Mountain Phase (1959, p.44 and Pl. 1/6) because I think that if this cultural phase is actually as old as the author thinks and if the artifact in question is really a burin - the illustration is not clear enough - we could not connect it with the burins and related implements discussed here.
- 4) See footnote 2)
- 5) In fact it would be better to use the term "pseudo-micro-burins" for these by-products so that very small real burins could be called micro-burins (I think that J. L. Giddings 1951, p. 195 used the term in the second sense). But as G. R. Lowther has pointed out, it is probably too late to make a change (Lowther 1960, p. 11).
- 6) It seems that the burin spalls figured by Meldgaard (1952, Fig. 78, no. 5) and Knuth (1958, Fig. 4, no. 10-13) are of this kind and not like the burin spalls from Eurasia; the same is true for some Sarqaq burin spalls from Disko Bugt, West Greenland, published by Larsen (Larsen and Meldgaard 1958, Fig. 19).
- 7) In fact the difference between these and the wedge-shaped cores like those from the Campus Site is not very great, though there the spalls are not struck from the sharpened edge but in direction to it. This means that the spalls from wedge-shaped cores have the bulb not, like the spalls from the burin-like cores, on the pointed end but on the wide end.
- 8) I don't know if the original identification as boot-creasers was based on ethnographic evidence. Boot-creasers are usually made of antler or ivory (Nelson 1899, p. 108).
- 9) Befu and Chard (1960) give to this type which is also represented in Japan the following comment: "The special form of probable burin.... which the Japanese archaeologists often call 'Shirataki engraver' (and which we have renamed 'Shirataki core burin') is often produced by a particular method which Yoshizaki has labelled 'Yubetsu technique'." It is true that these artifacts give sometimes the impression of having been used as core burins, though I prefer to call them cores and to not include them in my burin list of the Eskimo area.



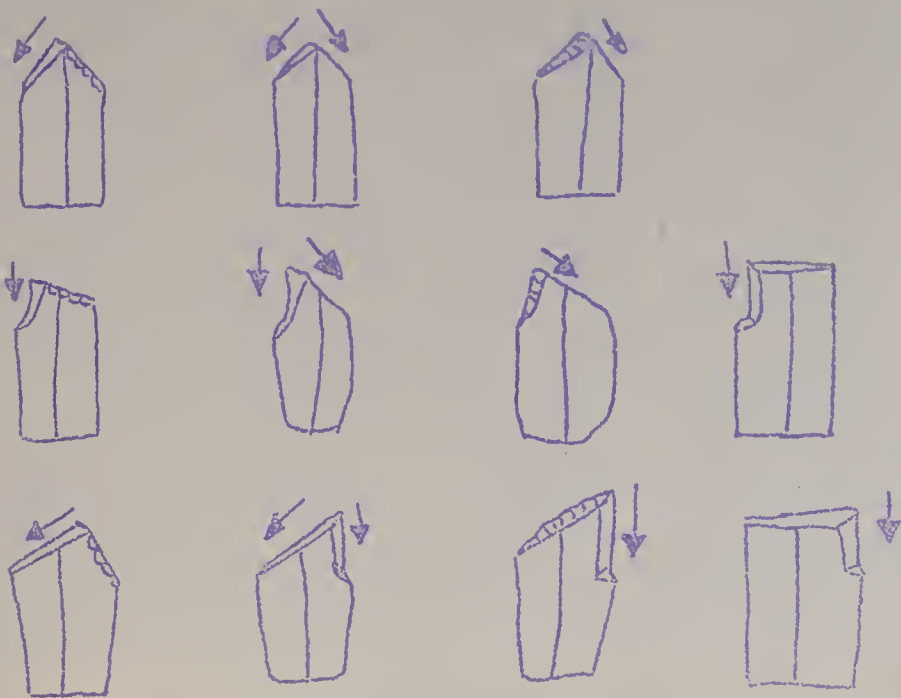
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- 10) A review of the material showed that besides the one true burin mentioned by Irving (1955, Fig. 1) there are two others of about the same (poor!) quality plus two which are more doubtful (on one the cutting edge is so narrow that it could also be called a graver).
  - 11) Though it seems that J. L. Giddings has recently found on Cape Krusenstern, northwest Alaska, flints like those from the Campus Site on beaches which are a little younger than those with traces of the "classic" Denbigh Flint Complex (personal communication to F. Hadleigh-West), on the other hand we must note that these kinds of cores are characteristic for early (preceramic) groups of ~~K/ldp/pl/tp/ps~~ the Japanese Mesolithic (Befu and Chard 1960; Sugihara 1960). And we find almost the same type of core in the Independence Culture of northern Greenland (Knuth 1954, Fig. 103/5 and 104 a). I therefore think that this type of the Arctic Small Tool Tradition must have reached Alaska rather early.
  - 12) It would be very useful if the flint implements could, for the most part, be drawn. The photographic reproductions are usually so poor that often an exact identification is impossible.



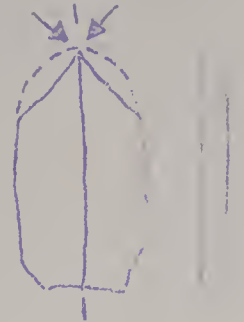


# Figures (draft)

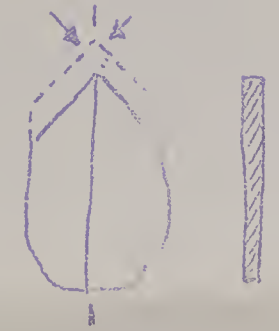
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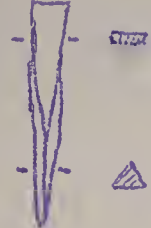
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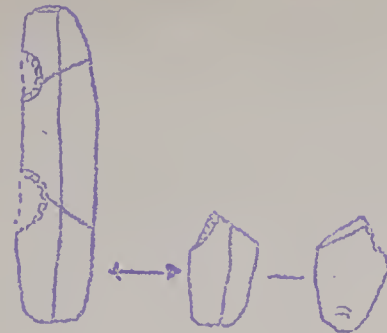
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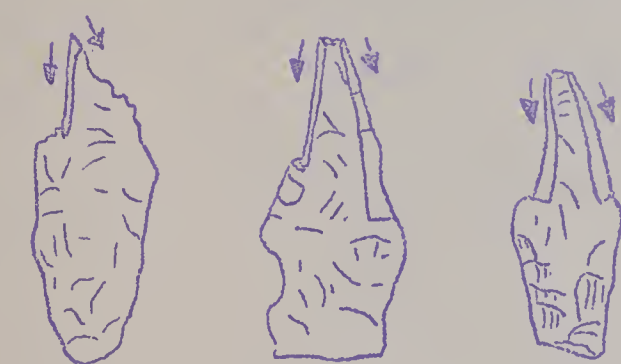
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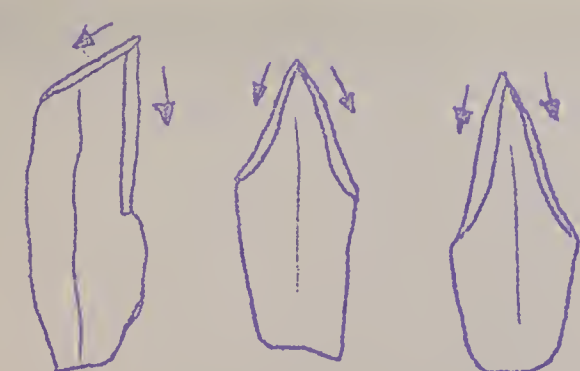
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For Scotty Macneil  
JMR

## ARCTIC

Northern archaeological field studies in 1967 were again largely confined to the west. Perhaps the most notable general observation regarding the work of this and the past two seasons relates to the increasing interest in interior Alaska and adjacent regions of Canada. The present rate of survey and excavation should soon result in an appreciably better perspective of Athapaskan culture history, as well as in more precise knowledge of early relationships between the far northwest interior and areas to the south.

Vandalism of Alaskan archaeological sites has recently become a problem of large proportions. Highly destructive amateur digging is reported from the Alaska Peninsula, Point Hope, Point Barrow, and several localities on the Arctic Slope. Most serious is that numerous sites are being mined for the commercial value of their artifacts, large numbers of which are now offered for sale in Fairbanks and presumably in other Alaska cities. It is certain that the traffic will increase. Corrective suggestions are in the

ALASKA. Kenai Peninsula. Edward Hosley (University of Alaska), with two assistants, reconnoitered the north and south shores of Kachemak Bay. Don E. Dumond (University of Oregon) participated briefly as a visitor. The work was supported by the University of Alaska. Hosley's aims were to determine the extent of damage, caused by the 1964 earthquake, to regional sites originally reported by Frederica de Laguna (see The Archaeology of Cook Inlet, Alaska) and to search for other, previously unreported sites. Some of the



localities were found to have suffered extensive damage. De Laguna's Cottonwood Creek and Yukon Island sites have been completely destroyed by subsistence and wave action, and the pictograph site in Sadie Cove is now submerged at high tide. Twenty-one sites were discovered by the field party, in addition to those previously reported. The largest of the newly found sites is a midden on Indian (Chugachik) Island. Hosley reports that all of the previously unreported localities appear to be of Eskimo affiliation.

Don E. Dumond (University of Oregon), supported by the National Geographic Society, surveyed portions of the Kenai Peninsula. A number of house ruins, probably Athapascan, were discovered and mapped. Dumond plans further surveys and excavations on the Peninsula.

Alaska Peninsula. Don E. Dumond (University of Oregon), accompanied by three assistants, continued surveys and excavations in Katmai National Monument. (See Current Research, American Antiquity, Vol. 31, No. 6). His work, supported by the National Geographic Society, was primarily directed toward the excavation of three ancient houses, two of which will be preserved as exhibits by the National Park Service. Two of the dwellings are of Western Thule date and apparent affiliation; the third relates to the regional Small Tool tradition. In addition to this work, two Small Tool tradition houses were partially excavated.

The Thule period houses, apparently permanent winter dwellings, were represented by structures having solid log frameworks and subterranean entrance passages. Dumond remarks that the two dwellings





support the argument that during the Thule period, this locality was occupied the year around. Previous local finds relating to Western Thule have been represented only by the remains of summer fish camps.

The single Small Tool tradition house that was completely excavated also appears to have been a relatively permanent habitation. Artifacts recovered from the dwellings are intermediate in type between Small Tool tradition and Norton-related artifacts (see Giddings, The Archeology of Cape Denbigh) previously found in the region--regional Norton-like artifacts have been assigned to the Smelt Creek phase by Dumond. No pottery was discovered in the Small Tool tradition house, but Smelt Creek-type stone artifacts were found associated with Small Tool tradition implements. Dumond, therefore, interprets the collection to stand for a transition between the Small Tool tradition and Norton culture.

Excavations in the Thule dwelling site revealed, in addition to the Thule houses noted above, a deposit of pre-Small Tool tradition artifacts which, on the basis of previous excavations in the area, has been named the Brooks River Strand phase. Radiocarbon dates place the phase at about 2500-1900 B.C. Dumond says that the 1967 collection of pre-Small Tool tradition artifacts probably dates from about 2500-2000 B.C. and that it almost certainly relates to the Takli Birch phase of the Pacific coast of the Alaska Peninsula. These related phases are characterized by stone lamps and large percentages of rubbed slate implements. Neither of these traits appear in later regional Small Tool tradition sites. Dumond concludes that for several hundred years before approximately 1900 B.C., both





sides of the Alaska Peninsula were inhabited by cultures related to those of Kodiak Island and the North Pacific American coast. Following about 1900 B.C., parts of the Alaska Peninsula, including the large, Naknek drainage area of which the Brooks River is a part, were occupied by Small Tool tradition peoples.

Joan B. Townsend (The University of Manitoba), accompanied by two assistants, excavated the Russian Point and Pedro Bay sites, on Iliamna Lake (see Current Research, American Antiquity, Vol. 32, No. 4). She was supported by the University of Manitoba and the National Research Council of Canada. Her work was an extension of her continuing study of the culture history of the Iliamna area. A major part of Townsend's 1967 study was aimed at a further illumination of the Pedro Bay site, which contains mixed components. Toward this end, she excavated two additional houses in the single component Russian Point site. The enlarged Russian Point artifact inventory, consisting of types also represented in one of the components at the Pedro Bay site, now permits more precise knowledge of component differences in the latter locality. The results of the 1967 Russian Point excavations imply that the Russian Point locality was occupied at the end of the 18th or early in the 19th century. Russian Point artifact types include - in addition to trade goods - bayonet-grooved ground slate points, boulder-chipped scrapers, and worked bone. One bone artifact may be a spear thrower.

Work at the Pedro Bay site consisted mainly of excavations of an early lithic component. The most characteristic artifact types of this occupation are chipped basalt points and ground-slate knives.



Townsend reports that typologically they most closely resemble Ocean Bay I and II implements reported by Clark from Kodiak Island (see Clark, American Antiquity, Vol. 31, No. 3, Pt. 1). Carbon samples collected by Townsend's crew should provide dates for this early Pedro Bay component.

Southwestern Alaska. James W. VanStone (Field Museum of Natural History), accompanied by one assistant, continued investigations in the Nushagak River region (see Current Research, American Antiquity, Vol. 31, No. 6). He was supported by the National Foundation for the Humanities. A 19th century habitation site, near the village of Elwak, was excavated, and the lower Mulchatna River, and Nushagak Bay were reconnoitered. Ethnographic data <sup>was</sup> also collected at Elwak and at other nearby settlements. VanStone's 1967 work was an extension of a long-range program of study of regional 19th century culture change.

Robert E. Ackerman (Washington State University) continued archaeological and ethnological studies in the Cape Newenham-Goodnews Bay region (see Current Research, American Antiquity, Vol. 32, No. 4). His crew of nine included Richard Ross and Lillian A. Ackerman, who served as archaeological and ethnological field directors, respectively. The work was supported by the National Science Foundation.

At Chagvan Bay, additional houses were excavated in the large, old site. Ackerman reports that dwellings in each of seven major house clusters have now been intensively examined, and that the





data indicate gradual change during the interval that spans from about Norton times (see Giddings, The Archeology of Cape Denbigh) to the late historic period.

At Security Cove, further evidence was found of an old occupation, possibly dating to as early as 3000 B.C., the inventory of which is characterized by side notched points. Excavations in that locality also revealed a component which Ackerman believes dates to about A.D. 1000. Its most characteristic tool type is a small, stemmed point.

Surveys in the Goodnews River valley, and in the area of Hagensloster Strait resulted in the discovery of numerous village ruins, the oldest of which were occupied about A.D. 1. On what is now known of the regional archaeology, Ackerman thinks that the early, notched point cultures probably persisted until replaced by what he refers to as pre-Norton components, which are related to the Small Tool tradition - Norton transitional phase reported from the Alaska Peninsula by Dumond (see above). He believes that Norton culture then developed, and flourished until gradually replaced by a variant of Western Thule which carried the "stamp" of Southwestern Alaska. According to Ackerman's interpretation, the Western Thule variant survived, with some modifications, until late historic times.

Ethnological work in the village of Goodnews Bay was designed to support and control the archaeological studies. Dwellings and other activity areas, and distributions of artifacts and features were mapped. House inventories were made, and the numbers and types





of implements within various artifact complexes were noted.

Wendell H. Oswalt (University of Southern California at Los Angeles) continued excavations at the site of the Kolmakov Redoubt on the south bank of the Kuskokwim River opposite the mouth of the Kwik or Kolmakov River. In 1966 a block house, a road house (or men's house), two Eskimo workers' dwellings, another dwelling, the Russian-American Company store, and two bath-houses were wholly or partially excavated. In 1967 a Russian workers' quarters, two priests' dwellings, and one other structure were excavated in part. In addition, various test excavations were made during both seasons.

The site, which spans 80 years, contains the remains of two major occupations; it was held by Russians from A.D. 1841 to A.D. 1866, and by Americans from A.D. 1869 to about A.D. 1918. The total Kolmakov collection now contains several thousand artifacts, most of which date from the American era of occupation and includes cartridges, coins, crockery, beads, nails, and metal containers---to name some major types---as well as implements of Eskimo manufacture. Oswalt states that the Kolmakov Redoubt excavations are the first in the Eskimo area of Alaska in which a Russian level of occupation has been isolated in an archaeological site. He further says that the Kolmakov site promises a rather precise chronological inventory of the kinds of manufactured items traded to the Eskimos of western Alaska during much of the historic period.



Nunivak Island. Michael Nowak (Colorado College), with one assistant, surveyed on Nunivak Island. His work, supported by the National Science Foundation, inaugurated a program of Nunivak archaeological studies. Test excavations were made at six localities in both northern and southern parts of the Island. Several hundred stone implements and about 2,000 pot sherds were discovered. The collections represent two major culture-time periods; late prehistoric Western Thule and Norton. In at least two sites, these two major manifestations were clearly separated stratigraphically. One site contained only Norton remains.

St. Lawrence Island. Hans-Georg Bandi (University of Bern) continued surveys and excavations on St. Lawrence Island. A large Punuk graveyard was discovered and partially excavated. A search for early man sites in interior portions of the Island was unsuccessful.

Northwestern Alaska. Edward Hosley (University of Alaska), accompanied by G. D. Sharma (of that University) and five assistants, surveyed the Ipiutak, Jabbertown, and Tigara sites (see Larsen and Rainey, Ipiutak and the Arctic Whale Hunting Culture) and other localities at Point Hope. The work, supported by the United States Corps of Engineers, was aimed at determining the remaining scientific value of the well-known Point Hope sites in view of their recent damage by erosion and other factors.

Both Tigara and Ipiutak were surveyed and mapped, and small representative collections of artifacts were excavated from each. The Tigara collection appears to include a number of burin-like





implements. In addition to those recovered by excavation, large numbers of Ipiutak-like artifacts were collected from the surfaces of Ipiutak beach ridges. The latter implements, from 25-30 blow-out localities, include projectile points, flake-knives, scrapers, and large cores. They were usually found in association with walrus skulls. Hosley believes that the scattered blow-outs probably represent Ipiutak kill sites. It was found that autumn storms and ice shoving has destroyed all but a very small remnant of the once very large Tigara midden, and that erosional destruction is continuing at a rate of 50-75 horizontal feet a year. Hosley estimates that at the present rate, the midden will be totally destroyed within ten years. Similar agents have caused the destruction of from 30-50 percent of the original Ipiutak site. Hosley observes that if further studies are to be made of Ipiutak and Tigara, they must be accomplished in the near future.

Central Alaska. Frederick Hadleigh-West (Alaska Methodist University), with two assistants, continued investigations in the area about Tangle Lakes (see Current Research, American Antiquity, Vol. 32, No. 4). His primary purpose was to further investigate regional cultural succession. Twenty-five new sites were discovered during the 1967 season; a total of 127 localities, all of which contain only lithic materials, are now known in the Tangle Lakes Region.

Artifacts and features discovered in 1967, which are previously unreported for Tangle Lakes, include a flint quarry site, notched



Donnelly burins which belong with the Denali inventory (see Hadleigh-West, American Antiquity, Vol. 32, No. 3), a conical variant of the Denali microblade core, and polyhedral cores of the size of some of those previously reported from the Arctic Slope of Alaska (see Solecki, Journal of the Washington Academy of Sciences, Vol 1, No. 3). Hadleigh-West also tentatively assigns the polyhedral cores to the Denali complex. An outstanding find consisted of an ancient house in which 130 notched and lanceolate points were found together with numerous faunal remains and abundant charcoal. Hadleigh-West remarks that results of the 1967 season support his estimate that the Tangle Lakes region has been occupied for more than 10,000 years.

John P. Cook (University of Wisconsin) with a crew of five, continued excavations at Healy Lake (see Current Research, American Antiquity, Vol. 32, No. 4). Consultants and visitors included Thomas D. Hamilton, Laurence Irving and Peter Morrison (University of Alaska), and Robert A. McKennan (Dartmouth College). The work was supported by the National Museum of Canada.

Two of eleven localities discovered on the Lake, were excavated. One of these, the Garden site, yielded more than 500 stone artifacts, most of which are microcores and microblades. In the other, the Village site, Cook and his crew found four periods of occupation, one of the more recent of which appears to quite directly relate to the Campus Site (see Nelson, American Antiquity, Vol. 2, No. 4). Cook reports that the lowest occupational level, which should considerably predate the Campus-like remains, contained numerous bird and small mammal bones associated with several hearths, and





that it yielded presumably good radiocarbon samples. He further says that several radiocarbon samples were also recovered from the later Campus level.

On the basis of as yet unconfirmed evidence derived from the 1967 excavations, Cook has reason to think that cremation was practiced by peoples represented by the Campus phase. Of further interest, Cook believes, on the basis of remains recovered from the Village site, that both notched and lanceolate points are characteristic of the Tuktuk complex (see Campbell in Anthropological Papers of the University of Alaska, Vol. 9, No. 2), and its several affiliates. Typical Tuktuk points and lanceolate types occurred in direct association under what appeared to be good stratigraphic conditions. Cook also reports that in the Village site typical Tuktuk microcores were associated with conical and other types of microcores.

Edward Hosley (University of Alaska), accompanied by one assistant, excavated the Birches site on the west arm of Lake Minchumina in the upper Kantishna River drainage. He was supported by the American Philosophical Society. Hosley's purpose was to complete the excavation of the small village site, which contained seven semisubterranean rectangular houses. The site was first excavated in 1962. The locality contained rectangular dwellings ranging in size from nine feet to eighteen feet in greatest horizontal dimension. All consisted of single rooms containing central hearths which lacked either tunnel entrances or adjacent bath-houses. The artifact series is characterized by small





implements. Major types include lanceolate points, ovoid bifacial knives, flake-knives, possible side blades, gravers, end-scrapers, wetstones, abraders and ochre. Charred birchbark basketry was also found. Associated faunal remains consisted largely of pike (Esox) and caribou (Rangifer). A radiocarbon date of A.D. 1327  $\pm$  95 years (I-2617) has been obtained from charcoal recovered from one of the seven houses. Hosley states that the site is probably Athapascan and that it represents one of the later phases of the so-called Denetasiro tradition.

Edward Hosley (University of Alaska) supervised the work of a crew of four in further excavations of the Campus site, at College, Alaska (see Nelson, American Antiquity, Vol. 2, No. 4). Jeffrey Manger was field foreman. Visitors included Don E. Dornard (University of Oregon), Hans-Georg Bandi (University of Bern), William N. Irving (National Museum of Canada), and Robert A. McKennan (Dartmouth College). The study was supported by the National Museum of Canada. The primary aims were salvage, determination of stratigraphic associations, and the obtaining of datable remains. The 1967 work resulted in the excavation of most of the site. Five to ten percent of the locality was left intact for possible further study.

No stratigraphy was detected - the artifact bearing level has been affected by permafrost, and both solifluction lobes and ice wedges were found at the base of the deposit. Nor were appropriate organic remains found in quantities large enough for radiocarbon dating, although minute amounts of charcoal and calcined bone were encountered. About 3,000 stone artifacts were recovered from the



culture bearing layer, which had a vertical thickness of 12-20 inches. They include Cascade-like or Lerma-like points (see MacNeish, Papers of the Robert S. Peabody Foundation for Archaeology, Vol. 6), notched burins, numerous microblades, end-scrapers, and microcores of the Campus type.

Hosley reports that the Campus type cores appear to have been restricted to the lower two-thirds of the deposit, and that the notched burins occurred only in the upper two-thirds. He says that the total artifact inventory is essentially like that of the Northwest Microblade tradition (see reference to MacNeish, above) and shares much in common with the Denali complex; and he estimates its age as 6500-5500 B.C.

Brooks Range. Douglas D. Anderson (Brown University) returned to the Onion Portage site, on the Kobuk River (see Current Research, American Antiquity, Vol. 32, No. 4). He was supported by the National Science Foundation. Anderson's large crew included Ruth W. Giddings (Haffenreffer Museum, Brown University), who was laboratory director. Primary objectives of the 1967 season were to obtain larger samples of artifacts bearing upon subtle stylistic changes through time within a single cultural tradition; to obtain radiocarbon samples associated with those parts of the Onion Portage sequence which are not yet dated; to determine the stratigraphic position of the so-called Akmak assemblage, which had been previously discovered outside of the stratified portion of the site; to determine possible relationships between environmental changes, and changes in the local archaeological column; to collect and preserve the relatively few bone fragments contained in the site;







and to collect recent and present environmental data.

Major results of the 1967 work, as reported by Anderson, include the following. Data from his Band 2 levels demonstrate an as yet undescribed culture or tradition which apparently intruded in the Kobuk region and caused an abrupt break in the Onion Portage sequence between Norton and Ipiutak cultures. Data recovered from Band 3 further illuminate the development of Choris culture (see Giddings, American Antiquity, Vol. 23, No. 2). Data recovered from Bands 4 and 5 now permit the description of a developmental sequence from what Anderson refers to as proto-Denbigh, through classic Denbigh, to late Denbigh (see Giddings, The Archeology of Cape Denbigh). Evidence from Band 8 testifies to three separate levels - presumably related to occupations - which may correlate with climatic changes. Three radiocarbon dates (P-1076, P-1111, P-1111A) imply that Level 1, Band 8 dates to about 6000 B.C. In 1967 charcoal radiocarbon samples were recovered from Level 3, Band 8. The forthcoming ages of these samples should relate to the cultural-climatic changes noted above.

Finally, in 1967, Anderson determined that the previously noted Akmak assemblage predates Band 8. Anderson believes, on the basis of typological comparisons, that Akmak should date between 12,000-8,000 B.C.

John M. Campbell (University of New Mexico), with two assistants, surveyed and excavated at Anaktuvuk Pass, and in the vicinity of Gandler Lake. Loren D. Potter, Plant Ecologist (University of New Mexico) was field associate. The work was supported by the Office of Naval Research (United States Navy) and the University of



New Mexico. At Anaktuvuk Pass, excavations were resumed at the Kavik locality (see Campbell, Arctic Institute of North America Technical Paper, No. 11). The site, containing at least two areas of settlement, is situated at a caribou crossing on the shallow Anaktuvuk River. Cultural, faunal and botanical remains occurred to a maximum depth of ten inches below the present ground surface. The few artifacts recovered included, most notably, antler arrowheads orleister prongs, and small stemmed or losenge shaped stone points of the previously reported Kavik type. Features encountered consisted of fire hearths. No traces of dwellings were found and since the site represents a habitation locality, it is presumed that Kavik houses were surface structures. On the presence of highly perishable organic materials, Campbell believes that Kavik is no more than a few centuries old; further, in view of the evidence from excavations that have been conducted in the far northwest since the discovery of Kavik, and on the basis of the artifacts discovered in 1967, Campbell now thinks that Kavik may represent Indian rather than Eskimo culture.

At Chandler Lake a previously unreported camp site was discovered. The site, probably of Nunamut Eskimo affiliation, occupies a fairly extensive area on the bank of the Chandler River, between Little Chandler and Akvalutak Lakes. It is intended that the locality will be excavated in 1968.

Arctic Slope. Edwin S. Hall, Jr. (Ohio State University), supported by the National Science Foundation, conducted an extensive





aerial and ground survey of the Arctic Slope. Hall reconnoitered all of the large lakes and many of the streams in an area bounded on the north by the interior edge of the Coastal Plain, on the south by the Noatak River, on the east by the Anaktuvuk River, and on the west by the Chukchi Sea. Hall's major purpose, with an eye towards future excavations, was the discovery of late prehistoric Eskimo encampments. In addition to Eskimo village sites on Itivluk and Desperation Lakes previously reported by Irving (see Arctic Anthropology, Vol. 1, No. 1), Hall found large camp sites on Betty, Burial, Kaiyak, Liberator, Swayback, and Tukutu Lakes. The Swayback and Tukutu Lake sites were found to contain historic as well as late prehistoric components. Hall says that the several sites just noted contain medium sized semisubterranean dwellings and in some cases Kadgis (men's houses). The number of dwellings in the sites noted range from 6 to more than 70. In addition to these late or relatively late localities, a number of small, historic sites were discovered. Hall remarks that in regard to future surveys of Arctic regions by aircraft, it is noteworthy that a number of regional historic sites reported by Howard and others (see Stoney, Naval Explorations in Alaska) were not visible from the air, and furthermore, could not be found by searching the ground.

Several early sites were also discovered. At Walker Lake, on the headwaters of the Kobuk River, excavations of a small camp site revealed artifacts resembling both Tuktu and Naiyuk types (see Campbell, Anthropological Papers of the University of Alaska, Vol. 10, No. 2). Both Tuktu-like and lanceolate points were found in





association. Hall notes that the site may represent a portion of a Tuktu-Naiyuk continuum, or it may be interpreted to mean that Tuktu and Naiyuk should not be considered as truly discreet cultural entities. In view of Cook's recent finds at Healy Lake (noted above) it would appear that the latter possibility may be the more likely. Arctic Small Tool tradition artifacts and other early stone implement types, including some nearly identical to types recently reported from the Utukok River by Humphrey (see Current Research, American Antiquity, Vol. 32, No. 4) were discovered at various places. Hall makes the following observations, and tentative conclusions: (1) There appears to have been a north-south line somewhere west of the Killik River which divided late prehistoric Nunamiut Eskimo groups who commonly dwelt in semi-subterranean houses, on the west, from similar groups on the east who occupied only surface dwellings. Hall believes that this difference may be explained by assuming that the eastern and western groups were derived from different areas; the western Nunamiut from the Noatak-Kobuk River regions, and the eastern Nunamiut from Point Barrow. (2) Hall's 1967 survey lends considerable support to the proposition that in the Brooks Range and on the Arctic Slope there was an hiatus of considerable length, perhaps a thousand years or more, between the early Eskimo cultures which, according to Irving, probably belong within the Arctic Small Tool tradition, and later prehistoric Eskimo groups (see Irving, and Campbell, Arctic Institute of North America Technical Paper, No. 11). (3) In the western part of the Brooks Range, late prehistoric



Early sites occurring south of the Arctic divide commonly contain stone-outlined men's houses. Men's houses are absent north of the divide. In 1968, Hall intends to conduct excavations at the above noted sites on Burial and Tukutu Lakes.

Karl H. Schlesier (Wichita State University), and three assistants, resumed excavations in the vicinity of May Lake, 50 air miles northwest of Anaktuvuk Pass (see Schlesier, American Antiquity, Vol. 32, No. 2). Egon Wiegand (Wichita State University) participated as geological advisor. The work was supported by the National Science Foundation and Wichita State University. Schlesier aimed at obtaining additional specimens of the flints he had previously collected in the flood plain of a local stream which he refers to as Sedna Creek, and at obtaining associated radiocarbon samples. Artifacts and frozen plant materials were excavated from old stream terraces along the creek. Pollen samples were also obtained. Schlesier reports that the stone specimens consist of flakes and flake tools which he believes were removed from pebble, discoidal, and Levallois cores. He relates the stone assemblage to the Mousterian tradition and relates them to both the Siberian Upper Paleolithic, and to the British Mountain, Kotuk River, and Kogruk complexes of the American far north (see Campbell, Anthropologica, N.S., Vol. 1; and MacNeish, Anthropological Papers of the University of Alaska, Vol. 4, No. 2).

Herbert L. Alexander, Jr. (Bryn Mawr), with a field crew of eight, returned to the Atigun Valley (see Current Research, American Antiquity, Vol. 32, No. 4). Richard Stuckenrath (University Museum) was field associate. Edwin S. Hall, Jr., (Ohio State University) attended as a distinguished visitor. The work was supported by the





National Science Foundation, and the University Museum. Alexander's purpose was to excavate stratified sites discovered in the Atigun Valley in 1966 and to reconnoiter river valleys lying to the east and west.

Alexander reports that his surveys of 1966 and 1967 have resulted in the discovery of approximately 50 recent Eskimo camps, and, in addition, sites related to the Denbigh Flint Culture (see Giddings, The Archeology of Cape Denbigh), and to Schlesier's Sedna Creek complex (see above). In 1967 his crew also discovered one site that is affiliated with the tradition represented by Tuktu-Palisades II (see Campbell, Anthropological Papers of the University of Alaska, Vol. 9, No. 2; and Giddings, Ancient Men of the Arctic).

A large stratified site, which is one quarter of a mile wide and extends for three quarters of a mile along the Atigun River, was intensively excavated. It was found to contain at least four periods of occupation, the earliest of which is related to and probably somewhat older than Birnirk (see Ford, Eskimo Prehistory in the Vicinity of Point Barrow, Alaska). Organic materials in the several levels were exceptionally well preserved, as were various other features. For example, the crew identified ancient floor areas that apparently represented antler work shops. The large, total collection is now being analyzed, and a number of radiocarbon samples are being dated.

CANADA. Yukon Territory. William N. Irving, National Museum of Canada, supported by that institution, returned to the vicinity



of Old Crow (see Current Research, American Antiquity, Vol. 32, No. 4). He was accompanied by two assistants. C. R. Harington (National Museum of Canada) and T. D. Hamilton (University of Alaska) were field associates. This was Irving's third season in the region. Most of the summer was devoted to working on problems of Pleistocene cultural and biological stratigraphy, apropos of the seemingly very early artifacts discovered in the area by C. R. Harington in 1966. Additional studies of the more than 30 regional localities containing extinct fauna, indicate that ancient artifacts and non-human bones have been sorted from old alluvium and lake sediments and redeposited in much younger alluvium. Irving states that a further knowledge of Pleistocene occupations in the region will depend as much on geomorphic and stratigraphic studies as on conventional archaeological techniques.

In addition to the above studies, Irving reconnoitered approximately 600 miles of the Old Crow and Porcupine Rivers. Twelve previously unreported Athapaskan sites were discovered and several hundred pounds of fairly recent fossil bones were recovered from exposures of old lake sediments. Irving reports that no evidence of pre-Athapaskan occupations was found during the surveys.

Richard E. Morlan (University of Wisconsin), a member of Irving's party, excavated in the large Vunta Kutehin, Klo-Kut site on the Porcupine River near Old Crow (see Current Research, American Antiquity, Vol. 32, No. 4). Artifacts recovered include stone points similar to those of the Kavik complex of Anaktuvuk Pass (see Campbell, Arctic Institute of North America Technical Paper,





No. 11), bifacially flaked knives, a single stone end-scraper having a graver spur, bone implements which are probablyleister center prongs, a bone barbed point, small fish effigies or lures, and an ornamented metapodial beamer. No traces of houses or other structures were found. Radiocarbon dates imply that the lowermost level of the site has an age of about A.D. 300. Morlan will continue work at Klo-Kut in 1968.

District of Mackenzie. James F. V. Millar (University of Calgary), and a crew of 20, continued surveys and excavations in the area about Fisherman Lake (see Current Research, American Antiquity, Vol. 32, No. 4). He was supported by the Arctic Institute of North America, and the National Research Council of Canada.

Millar's major objective was to further define the regional sequence. Five stratified, and two single component sites were excavated. Together they contained the remains of between 16 and 20 distinctive occupations, extending from late Athapascan times to 10,000 B.C., or earlier. Radiocarbon dates place some of the plano complexes in the sequence at about 7000 B.C. Still older levels have not yet been dated, but Millar has fairly established that several of the sites were occupied at a time when the front of the Laurentide Ice Sheet stood less than 20 miles distant. Artifacts from the lowermost levels consist of flakes, and chopper-like tools.

Bryan C. Gordon (University of Calgary), a member of Millar's crew, excavated a historic Athapascan site at the confluence of



the Mackenzie and Willowlake Rivers. He was accompanied by one assistant. The site dates to A.D. 1850 or earlier. Gordon believes that the locality represents an early trade rendezvous site of the Slave and Dogrib Athapascans upon which, following contact, a trading fort was later constructed. Excavated features included log cabins and stone fireplaces.

Manitoba. Ronald J. Nash (University of Alberta), accompanied by two assistants, surveyed and excavated in northernmost Manitoba (see Current Research, American Antiquity, Vol. 31, No. 6). The University of Manitoba supported the work. Nash's primary aim was that of further illuminating the known culture history of a large area encompassing Rock, Egenolf, and Shethanel Lakes, and the region about Churchill. Specific objectives were the further defining of Chipewyan material culture, and the finding of additional sites of the Arctic Small Tool tradition.

A collection from a late Chipewyan site on Shethanel Lake contains large, stone, stemmed side-notched and triangular points; a stone side blade, and stone knives, scrapers and choppers. A newly discovered pre-Dorset locality at Churchill represents a kill site, where very large stone chopping-scraping tools were found associated with typical Arctic Small Tool types. Finally, the contents of a site tested at Rock Lake which contained, among other artifacts, implements relating to the Arctic Small Tool tradition, suggest early boreal forest-coastal contact and diffusion.





District of Keewatin. Charles F. Merbs (University of Chicago), accompanied by three assistants, surveyed and excavated in a large area including Rankin Inlet, Chesterfield Inlet, and Roes Welcome Sound. A large number of tent rings, winter house ruins, caches, and burials relating to both Thule and more recent Eskimo groups were discovered during the surveys. Work was concentrated at the large Thule site of Silumiut north of Chesterfield Inlet. Silumiut contained about 24 winter house ruins, hundreds of other stone features, and 150 burials. One hundred and four burials were excavated. Merbs reports that with the exception of a burial containing two children and a burial containing a woman and an infant, all graves examined held a single individual. He further states that only one of the recovered skeletons is recent; the remaining 105 appear to predate European contact in the area. Referring to the advisability of future studies in the region, Merbs says that several excellent Thule sites, containing at least 150 burials, remain to be excavated.

District of Franklin. Albert Dekin (Michigan State University), with three assistants, conducted excavations on Baffin Island at the Crystal II and Shaymarc sites at Frobisher Bay, and at the Morrison and Closure sites on Cape Tanfield near Lake Harbour (see Current Research, American Antiquity, Vol. 29, No. 4). The project, under the supervision of Moreau S. Maxwell, was supported by the National Science Foundation.

A total of nearly 1,200 artifacts have now been recovered



from the pre-Dorset Shaymarc site. The locality is representative of the Arctic Small Tool tradition and presumably dates to about 2000 B.C.

The Crystal II site was first excavated by Henry B. Collins in 1948 (see Report of the National Museum of Canada for 1948-1952, Bull. 118). Collins found that it contained a Thule culture layer lying above a Dorset level, the first instance in which such stratigraphic associations had been discovered. The results of the 1967 excavation suggest that a third pre-Dorset component is present in the Crystal II site. Further, the most recent excavations demonstrate beyond reasonable doubt that true burins in significant numbers persisted in local Dorset culture until about A.D. 500.

The Closure site reflects pre-Dorset communities, the members of which lived in small, isolated household clusters. The site, which dates to approximately 2500 B.C., has yielded a total of 1,500 stone artifacts, many of which relate rather directly to the Denbigh Flint culture. Maxwell remarks that excavations at the Closure site imply that very early Arctic Small Tool inventories, which spread eastward into the area, contained polished burin-like tools and slate knives and adzes.

Excavations of a large multi-family dwelling at the Morrison site produced further data relative to daily activities of the Dorset peoples as they occurred at approximately 600 B.C.

GREENLAND. West Greenland. A party of five from the Danish National Museum excavated at the Nugarssuk site in the Upernavik District.

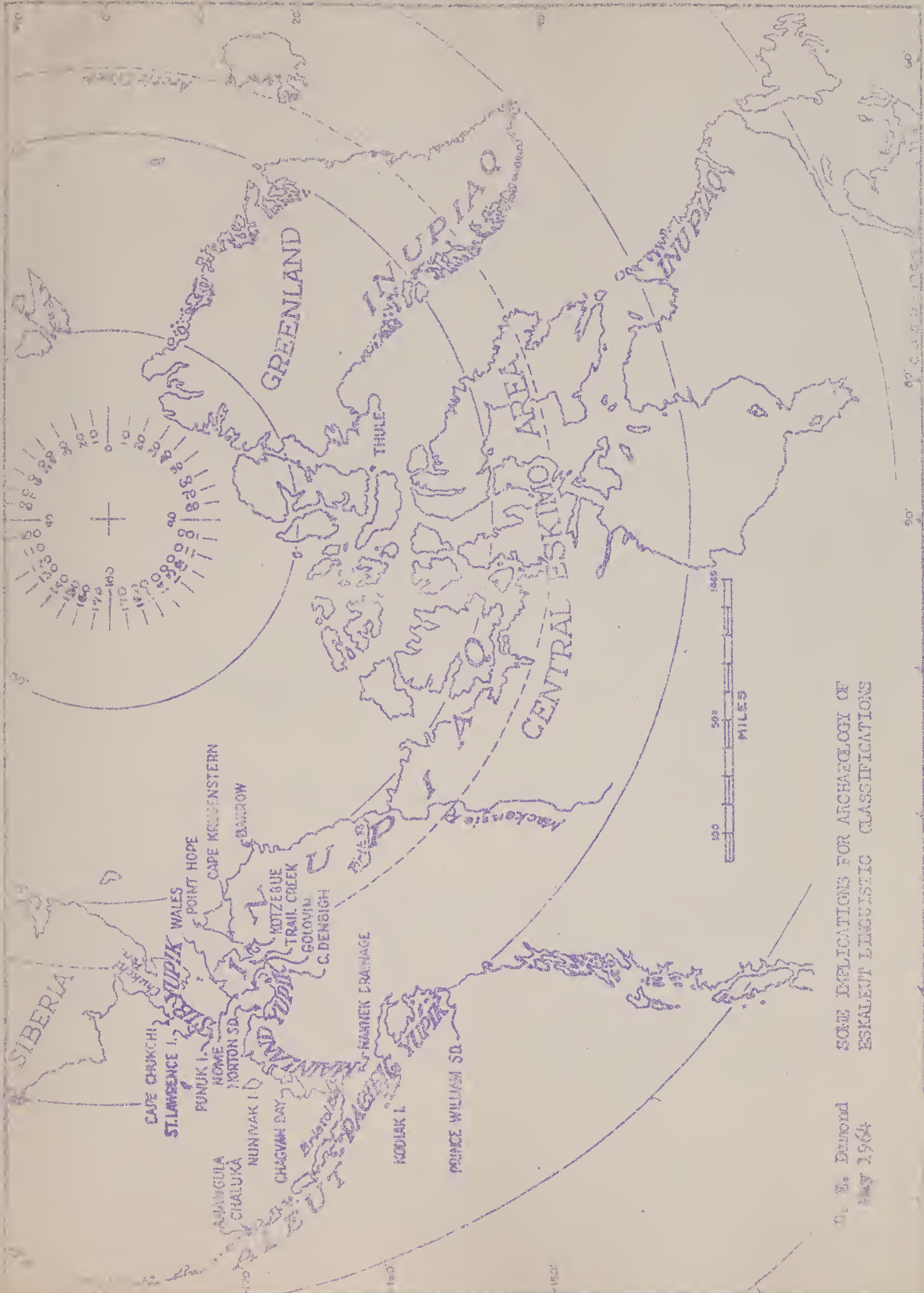




Helge Larsen (Danish National Museum) supervised the work. The major objective was that of collecting data relative to culture changes induced by European contact in the 17th and 18th centuries. Six house ruins and 50 burials, spanning from about A.D. 1650 to A.D. 1850, were excavated. Larsen reports that more than 6,000 artifacts and numerous skeletons were recovered.

John M. Campbell





SCALE INDICATIONS FOR ARCHAEOLOGY OF  
ESKIMO LINGUISTIC CLASSIFICATIONS

Dr. S. D. Church  
May 1964







After 4 hours

1000 A.D.

600 B.C.

with brown ground layer  
beginning to and  
when that layer is  
removed light - like Taper  
or part of same

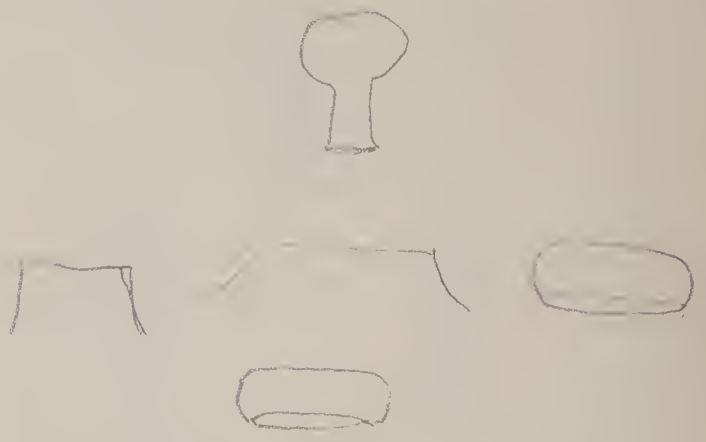




1. Sample white ware
2. masonry white ware
3. white ware pottery

4. Blasting - Grinding

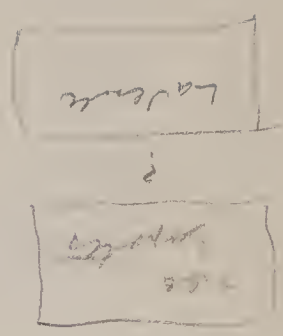
5. Orange ware black or brown



1100-900 B.C.

(Hap. V 250-100 B.C.)  
 Charge II - masonry effect  
 coarse sand - brown  
 masonry

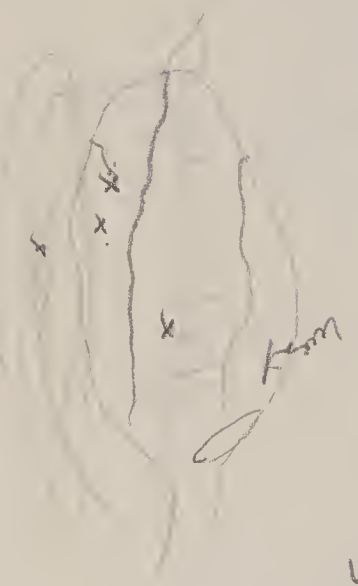
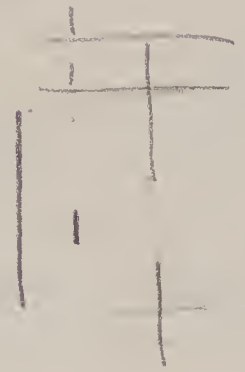
T. 2.



Large fragments



11,000



masonry

9-12

TS 209

Ajalpan - stone

W 6 - E 7

(2 x 4 + 1/2)

## ARCHAEOLOGY IN CANADA

There are several comments concerning developments in the planning and preparation of the volume tentatively titled "Archaeology in Canada". Since there are a large number of us participating in it and since I am obviously a rather junior man in the crowd, suggestions on any aspect of the publication from any of its participants would be most welcomed. For example, does anybody have a strong idea on a title for the proposed publication?

I have approached the Geological Survey of Canada and it seems certain that a group of its Pleistocene geologists will prepare a chapter on their subject especially designed for people interested in reading archaeology.

Three or four people have asked me to lay down a statement of style, content, purpose, coverage, etc. The book is conceived to serve as a comprehensive base line on Canadian prehistory suitable for the university student and the educated or interested adult. It should also be of value to the profession. It is not meant to be a popular account on the level of the "Reader's Digest" or "Maclean's" or "The Beaver". I must ask that jargon and minutiae be avoided. The grammar and terminology must be precise, clear and controlled. I would hope in the case of most of us that we achieve at least some degree of literary sophistication. Most of us rarely or never exhibit this quality, in part because we never try. Some few of our number exhibit it with enviable consistency. I would ask that all participants bear in mind, and work to achieve, not only archaeological precision and coverage, BUT ALSO style, vividness, cohesion, colour, and humour. If anyone wishes an example of an adroit extremity in professional writing I would ask that he read or reread Edward Deevey's article in the "American Scientist" (Vol. 48, No. 3, September 1960). Find the word, the phrase, the apt analogy.

In a general sense the Cole volume will give some idea, but I beg you to present a more cohesive account of your area (and I will certainly expect a better narrative style than appears in much of that volume).

Each chapter should thread in some historical perspective on the archaeology (as opposed to the prehistory) of its area. People such as Smith,







Nickerson, Boyle, Wintenberg, and Jenness should receive the bouquets they deserve with some attention as to who, when, where, and why. I would hope that the reader will learn the archaeological problems answered and unanswered in each region; that is to say, the paper should be much more than a summary of the archaeological knowledge of an area. Each paper must include a map of its area and I would hope that all participants will provide specimen illustrations and photographs of important excavations. Site illustrations will be selected from among those submitted. Each paper should say something about ecological zones, geography, and climate, and each archaeological sequence should be tied to the area's ethnography. Please provide extensive, correct bibliographies. The matter of consistent format in illustration remains open. For example, would we use line drawings or photographs and will we send specimens to Ottawa for uniform photography or drawing? I will try to hold foremost in my mind and yours four words pertaining to the content of each paper: problems, interpretations, reconstructions, and syntheses.

Question: do we begin our archaeological summaries in the ethnographic present and work back or vice versa? So far I have one for and one against. Personally, I am inclined to begin with the oldest and then to move up the calendrical ladder.

To review the plan briefly: each author will submit next FEBRUARY a completed final manuscript accompanied by maps, photographs, bibliography, etc. suitable for independent publication. Separate publications of these papers is planned. There will, of course, be overlaps in this from province to province. The manuscripts will be edited with such matters in mind so that different authors will receive requests to delete this, or enlarge that, or reduce such and such. I have no intention of eliminating points where two authors are in disagreement. Parenthetically, I hope each author will record those significant published views that oppose his own. Subsequently each author will receive his edited manuscript for preparation of second draft in the next fiscal year, a draft which will be published as a chapter in the final volume. Each will also receive a copy of all





the other manuscripts allowing him to cross-reference or to argue with his neighbours. We might even change each other's thinking. At the same time, in the second year, Lowther, Oschinsky and Anderson will receive copies of the whole shot as background for the papers they are to write.

I will not detail matters of Preface, Introduction, and Dedication except to note that Dr. Jenness has allowed the book to be dedicated to him. In fact, he is very pleased. The attached outlines authors proposed and suggests maximum number of printed pages, including all illustrations, for each author. I would hope that we all came out near our maximum pagination. Suggestions on changes of page numbers will be entirely welcome.

Since MacNeish has a rather full bowl of corn and since Bill Mayer-Gakes has just announced his welcomed return to Canada, perhaps he will be persuaded to write a chapter on his chosen province, Manitoba. Last, because of the very marked increase in his duties as Assistant Director, Clifford Wilson has decided to withdraw from the editorial side which is at least as big a blow to me as to each of you. With that news and this tasteless ramble, I would not be surprised if several more followed his example. Obviously I have woeful shortcomings as editor and co-ordinator of this joint project. And, my role jeopardizes any good feelings you may hold for me. Your work has my respect and admiration but lacking tact, I seldom manage the deft or delicate touch. I beg your best efforts in the demands of the project and your patience in Taylor's deficiencies. The ham-handed guidance will surely be incorrect and unfair at times. When it seems so, don't spare my feelings for I'll not be sparing yours.

Bill Taylor



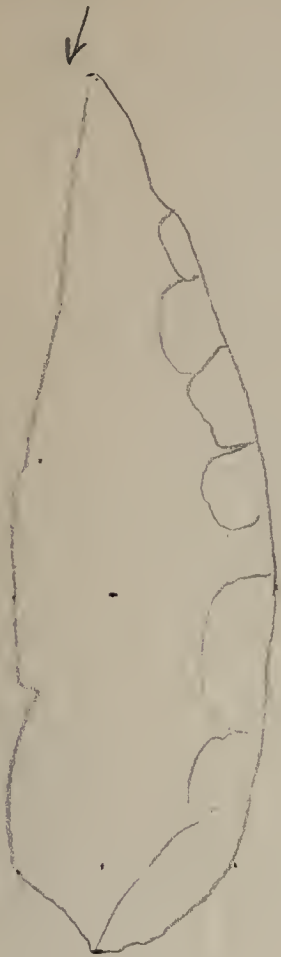


Chapter	Area	Author	Maximum Pages
I	British Columbia	Borden	50
II	Northwestern Canada	MacNeish	50
III	Canadian Tundra	Taylor	40
IV	Alberta	Forbis	40
V	Saskatchewan	Kehoe	40
VI	Manitoba	MacNeish (Mayer-Oakes)	40
VII	Ontario	Wright	50
VIII	Quebec	Wright and Taylor	40
IX	Maritime Provinces	Pearson and Taylor	30
X	Historic Sites in Canada	Kidd	20
XI	Physical Anthropology	Oschinsky and Anderson	50
XII	Theory and Method	Dowther	25
XIII	Pleistocene History		20



Chapter	Page	Author	Subject
I	1	John Doe	General Principles
II	2	John Doe	General Principles
III	3	John Doe	General Principles
IV	4	John Doe	General Principles
V	5	John Doe	General Principles
VI	6	John Doe	General Principles
VII	7	John Doe	General Principles
VIII	8	John Doe	General Principles
IX	9	John Doe	General Principles
X	10	John Doe	General Principles
XI	11	John Doe	General Principles
XII	12	John Doe	General Principles
XIII	13	John Doe	General Principles
XIV	14	John Doe	General Principles
XV	15	John Doe	General Principles
XVI	16	John Doe	General Principles
XVII	17	John Doe	General Principles
XVIII	18	John Doe	General Principles
XIX	19	John Doe	General Principles
XX	20	John Doe	General Principles

Ft. Lland burin



APHA - Vol 9, No. 1  
Fig 10, 1 - Lake EP Gyllen

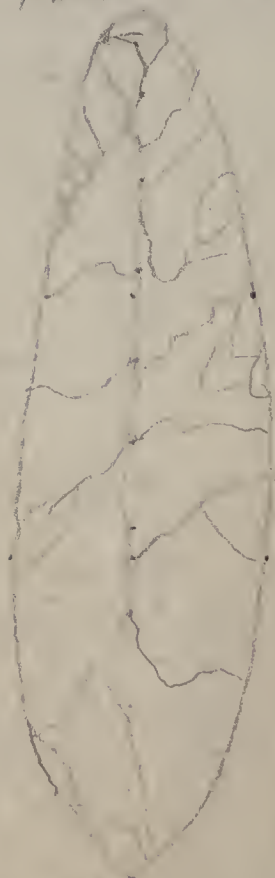
Propagula of Lland



APHA - Vol 9, No. 1  
Fig 10, 2 - Lake EP Gyllen



APHA-Vol. 9, No. 1  
Feb. 2











Field notes: E.S. MacNash

Whitkorse, Yukon Territory

Summer 1959

(dictated on tape recorder)



